

## DEVICE FOR FRACTIONATING MIXTURES

The invention relates to a device for fractionating mixtures comprising

5 separation elements which are series mounted and mounted in a closed loop. Said device is characterized in that the solvent used is a supercritical pressurized fluid, each of the separation elements is made of a membrane separation, it comprises means for injecting the solvent at a pressure which is greater than the critical pressure thereof and for maintaining the pressure in said loop at a value which is

10 above critical pressure, and it further comprises means for injecting the diluent and for maintaining the pressure thereof at a value which is similar to the value of the pressure of the solvent (S) in each of the areas (I, II, III, IV).